

REMARKS

By the above amendment, claim 1 has been amended to incorporate the features of dependent claim 4 therein and claim 5 has been amended to incorporate the features of dependent claim 7 therein, with claims 4 and 7 being canceled. Applicants submit that claims 1 and 5, as amended, together with the dependent claims thereof, patentably distinguish over the cited art as will become clear from the following discussion.

The rejection of claims 1 and 2 under 35 U.S.C. 102(b) as being clearly anticipated by U.S. Patent No. 5,821,692 to Rogers; the rejection of claims 1 and 3 under 35 U.S.C. 102(b) as being clearly anticipated by U.S. Patent No. 4,734,338 to Eguchi; the rejection of claim 4 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,734,338 to Eguchi in view of U.S. Patent No. 6,049,167 to Onitsuka; the rejection of claims 5 and 6 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,189,405 to Yamashita in view of U.S. Patent No. 5,821,692 to Rogers; and the rejection of claim 7 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,189,405 to Yamashita in view of U.S. Patent No. 5,821,692 to Rogers and further in view of U.S. Patent No. 6,049,167 to Onitsuka; such rejections are traversed insofar as they are applicable to the present claims, and reconsideration and withdrawal of the rejections are respectfully requested.

As to the requirements to support a rejection under 35 U.S.C. 102, reference is made to the decision of In re Robertson, 49 USPQ 2d 1949 (Fed. Cir. 1999), wherein the court pointed out that anticipation under 35 U.S.C. §102 requires that each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference. As noted by the court, if the prior art reference does not expressly set forth a particular element of the claim, that

reference still may anticipate if the element is "inherent" in its disclosure. To establish inherency, the extrinsic evidence "must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill." Moreover, the court pointed out that inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.

With regard to the requirements to support a rejection under 35 U.S.C. 103, reference is made to the decision of In re Fine, 5 USPQ 2d 1596 (Fed. Cir. 1988), wherein the court pointed out that the PTO has the burden under §103 to establish a prima facie case of obviousness and can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references. As noted by the court, whether a particular combination might be "obvious to try" is not a legitimate test of patentability and obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. As further noted by the court, one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.

Furthermore, such requirements have been clarified in the recent decision of In re Lee, 61 USPQ 2d 1430 (Fed. Cir. 2002) wherein the court in reversing an obviousness rejection indicated that deficiencies of the cited references cannot be remedied with conclusions about what is "basic knowledge" or "common knowledge". The court pointed out:

The Examiner's conclusory statements that "the demonstration mode is just a programmable feature which can be used in many different device[s] for providing automatic introduction by adding the proper programming software" and that "another motivation

would be that the automatic demonstration mode is user friendly and it functions as a tutorial" do not adequately address the issue of motivation to combine. This factual question of motivation is immaterial to patentability, and could not be resolved on subjected belief and unknown authority. It is improper, in determining whether a person of ordinary skill would have been led to this combination of references, simply to "[use] that which the inventor taught against its teacher."... Thus, the Board must not only assure that the requisite findings are made, based on evidence of record, but must also explain the reasoning by which the findings are deemed to support the agency's conclusion. (emphasis added)

Applicants note that by the present amendment, independent claims 1 and 5, as amended, represent claims 4 and 7 written in independent form, with the remaining claims being dependent thereon. Thus, applicants submit that the rejection of claims 1-3, 5 and 6 have been obviated by the amendments presented herein, and a discussion of the rejections of such claims under 35 U.S.C. 102 and 35 U.S.C. 103 is considered unnecessary. Rather, the following discussion is directed to the rejections of claims 4 and 7 under 35 U.S.C. 103.

Turning to claim 1, as amended (representing claim 4 in independent form), such claim is directed to an organic electroluminescent display as illustrated in Figs. 1A and 1B of the drawings of this application, having a transparent substrate 1, an organic light emitting layer 2, electric current supply means as illustrated in Fig. 2, for example, a housing 5 which covers at least the organic light emitting layer and is sealed to the transparent substrate, and heat radiation material 7 in a liquid form which is filled in a space formed between the housing 5 and the transparent substrate 1, wherein water which is contained in the heat radiation material as an impurity amounts to not more than 100 ppm by weight ratio. That is, in accordance with the present invention, the liquid serves for heat radiation and such liquid often contains water as an impurity. In accordance with the present invention, as described at page 8 of the specification, the quantity of water which is contained in

the heat radiation material as an impurity amounts to not more than 100 ppm by weight ratio.

As recognized by the Examiner, neither Rogers nor Eguchi discloses heat radiation material in a liquid form filling the space between the housing and substrate and having a water content as recited in the claims. More particularly, applicants note that Rogers discloses in Fig. 1 thereof, filling a space 24 with a dielectric liquid 34, such as a fluorinated carbon which is very hydrophobic and forms a barrier highly resistant to the diffusion of H₂O (water) as described in col. 3, lines 26-33. Thus, it is readily apparent that Rogers does not disclose or teach a liquid for heat dissipation containing water as an impurity in an amount no greater than 100 ppm in weight ratio. Likewise, Eguchi in Fig. 4, discloses the utilization of a silicon oil 42 in col. 33, lines 19-22, "which was purified, degasified and dried according to a usual method." (emphasis added) Applicants submit that the disclosure of Eguchi et al suggests elimination of any gas and the effect of a complete drying of the silicon oil 42. The Examiner recognizes this deficiency of Eguchi in stating that "Eguchi fails to exemplify that the water which is contained in the heat radiation material as impurity amounts to not more than 100 ppm by weight ratio. Eguchi mentions that the material has been dried but not the degree to which it should be done." In order to overcome this recognized deficiency of Eguchi which is also a deficiency of Rogers, the Examiner refers to the patent to Onitsuka.

In setting forth the rejection of claim 4, the Examiner states:

Onitsuka, in a similar organic electroluminescent display teaches that the water content of the material between the housing and the substrate should be not more than 100 ppm in order to minimize the chance for corrosion of the electrodes (Abstract, Line 9). (emphasis added)

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine the display of Eguchi with the water content taught by Onitsuka in order to reduce the chance for the corrosion of the electrodes. (emphasis added)

Applicants note that while the Examiner refers to the material of Onitsuka as having a water content, Onitsuka specifically discloses that the space D40 as illustrated in Figs. 1 and 2 thereof is filled with "an inert gas such as helium, argon, and nitrogen" (col. 5, lines 65 and 66) (emphasis added). Further, as described in col. 5, line 66 to col. 6, line 1, the inert gas contained in the space D40 should desirably have a water content of up to 100 ppm. Applicants submit that an inert gas is not a liquid, as recited in the claims of this application, nor does an inert gas have heat radiation properties as recited in claim 1, for example. Applicants further submit that the behavior of a trace amount of water existing in a gaseous phase is different from a trace amount of water existing in a liquid phase, especially, with respect to electrical insulating properties. Thus, applicants submit that Onitsuka fails to disclose or teach a liquid having a water content as recited in claims of this application. Furthermore, applicants submit that in light of the disclosure and teaching of Eguchi to degasify and to dry the disclosed silicon oil thereof, the proposed combination of Onitsuka and Eguchi represents a hindsight reconstruction attempt in complete disregard of the teachings of the individual references in an attempt to meet the claimed limitations. Thus, applicants submit that the Examiner has engaged in impermissible hindsight reconstruction, utilizing the principle of "obvious to try" which is not the standard of 35 U.S.C. 103. See In re Fine, supra. Thus, applicants submit that claim 1, as amended, patentably distinguish over this proposed combination of references in the sense of 35 U.S.C. 103, and claim 1 and its dependent claims should be considered allowable thereover.

With respect to independent claim 5, the Examiner in relation to claim 7 has utilized Yamashita, Rogers and Onitsuka. Irrespective of the Examiner's position concerning Yamashita and Rogers, as recognized by the Examiner, such references do not disclose or teach a non-conducting liquid which is filled in a space formed between the housing and the transparent substrate, wherein water which is

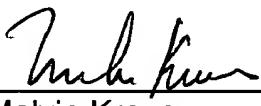
contained in the non-conducting liquid as an impurity amounts to not more than 100 ppm by weight ratio. It is noted that claim 5 differs from claim 1 in reciting additional features, including a metal housing and first and second electrodes arranged in a particular manner. Applicants note that as pointed out above, Rogers does not disclose the aforementioned claimed features and neither does Yamashita. This fact has been recognized by the Examiner in the statement that "Yamashita in view of Rogers fails to exemplify that the water which is contained in the heat radiation material as impurity amounts to not more than 100 ppm by weight ratio". Applicants further note that irrespective of the Examiner's contentions concerning Yamashita, applicants submit that Yamashita does not disclose or teach a non-conducting liquid which is filled in a space formed between the metal housing and the transparent substrate, as recited in claim 5, in addition to the indicated water content of such non-conducting liquid. Hereagain, the Examiner has contended that it would be obvious to utilize Onitsuka with the other cited art, and as pointed out above, Onitsuka does not disclose a liquid having a water content as recited, but rather, discloses an inert gas such that the proposed combination again represents a hindsight reconstruction attempt utilizing the principle of "obvious to try" which is not the standard of 35 U.S.C. 103. Accordingly, applicants submit that claim 5, as amended, and the dependent claims also patentably distinguish over this proposed combination of references in the sense of 35 U.S.C. 103 and should be considered allowable thereover.

In view of the above amendments and remarks, applicants submit that independent claims 1 and 5, as amended, and the dependent claims patentably distinguish over the cited art and should now be in condition for allowance. Accordingly, issuance of an action of a favorable nature is courteously solicited.

To the extent necessary, applicant's petition for an extension of time under 37 CFR 1.136. Please charge any shortage in the fees due in connection with the filing

of this paper, including extension of time fees, to Deposit Account No. 01-2135
(501.40272X00) and please credit any excess fees to such deposit account.

Respectfully submitted,



Melvin Kraus
Registration No. 22,466
ANTONELLI, TERRY, STOUT & KRAUS, LLP

MK/cee
(703) 312-6600

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Please amend claim 1 as follows:

1. (amended) An organic electroluminescent display comprising:
a transparent substrate,
an organic light emitting layer which is formed on a back surface side of the transparent substrate,

electric current supply means which makes an electric current flow through the organic light emitting layer,

a housing which covers at least the organic light emitting layer and is sealed to the transparent substrate, and

heat radiation material in a liquid form which is filled in a space formed between the housing and the transparent substrate,

wherein water which is contained in the heat radiation material as an impurity amounts to not more than 100 ppm by weight ratio.

Please cancel claim 4 without prejudice or disclaimer of the subject matter thereof.

Please amend claim 5 as follows:

5. (amended) An organic electroluminescent display comprising:
a transparent substrate,
first electrodes which are extended in the x direction and are arranged in parallel in the y direction on a display region at a back surface side of the transparent substrate,

an organic light emitting layer which is formed on the display region such that the organic light emitting layer also covers the first electrodes,

second electrodes which are extended in the y direction and are arranged in parallel in the x direction on a surface of the organic light emitting layer,

a metal housing which covers at least the organic light emitting layer and is sealed to the transparent substrate, and

a non-conducting liquid which is filled in a space formed between the housing and the transparent substrate,

wherein water which is contained in the non-conducting liquid as an impurity amounts to not more than 100 ppm by weight ratio.

Please cancel claim 7 without prejudice or disclaimer of the subject matter thereof.